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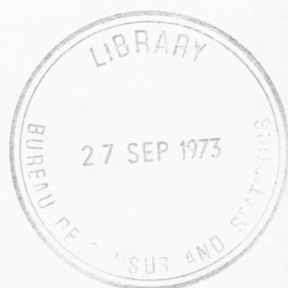
COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
WESTERN AUSTRALIAN OFFICE

Statistics **of** **Western Australia**

NON-RURAL PRIMARY **INDUSTRIES**

1971-72

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AND GOVERNMENT STATISTICIAN



By Authority. WILLIAM C. BROWN, Government Printer
1973

ROUNDING OF FIGURES

Many of the figures appearing in the tables have been rounded to thousands without making those adjustments which would be needed to make the rounded figures add to the rounded total. It is for this reason that figures do not always add to the totals shown in the tables.

NON-RURAL PRIMARY INDUSTRIES

CONTENTS

TABLE	PAGE
Mineral Statistics	
Explanatory Notes	4-5
1 Summary of Mining Operations by Industry Sub-Division: 1968-69 to 1971-72	6
2 Summary of Mining Operations: Selected Classes: 1968-69 to 1971-72	7
3 Mineral Production: Three-year summary	8
4 Metallic Content of Selected Minerals Produced: Three-year summary	9
5 Mining Accident Casualties Classified according to Industry: 1968-69 to 1971-72	10
6 Leases, Licences, Permits, Rights, etc. in Force under the Mining Act and Special Acts: Three-year Summary	11
7 Leases, Licences, and Permits in Force under Petroleum Acts: Three-year Summary	12
8 The Perth Mint: Five-year Summary	12
Mineral Exploration	
Explanatory Notes	13-14
9 Mineral Exploration (other than for Petroleum): Expenditure, Employment, and Footage Drilled, Sunk or Driven	14
10 Private Mineral Exploration (other than for Petroleum): Expenditure, Employment, and Footage Drilled, Sunk or Driven: Five-year Summary	15
11 Private Petroleum Exploration: Expenditure and Source of Funds: Five-year Summary	15
12 Petroleum Exploration: Summary of Wells and Footage Drilled: Five-year Summary	15
Fisheries, including Whaling	
Explanatory Notes	16
13 Fish, Crustaceans and Molluscs: Catch and Value: Three-year Summary	16
14 Fish and Crustaceans: Catch by Fishing Locality	17
15 Fish and Crustaceans: Catch by Fishing Blocks	18
Map of Western Australia showing Fishing Blocks	19
16 Catch and Effort in Haul Netting and Beach Seining	20
17 Catch and Effort in Hand Lining for Snapper	20
18 Catch and Effort in Pot Fishing for Rock Lobsters	20
19 Catch and Effort in Trawling for Prawns	21
20 Fish and Crustaceans: Catch by Method	22
21 Whaling: Five-year Summary	22
Forestry	
22 Area under Forest, Production, and Employment: Three-year Summary	22
Value of Primary Production (excluding Mining and Quarrying)	
Explanatory Notes	23
23 Value of Primary Production (excluding Mining and Quarrying): Five-year Summary	24
<i>List of Statistical Publications</i>	25-6

NOTES ON STATISTICS OF MINING

Sources of information

The statistics relating to mining, appearing in Tables 1 and 2 of this publication are derived from annual mining census returns supplied by enterprises engaged in mining in Western Australia. Details of the quantity, value and metallic content of minerals produced, appearing in Tables 3 and 4 have been compiled by combining publishable data from the census with additional information obtained from the Department of Mines, the Department of National Development and other sources.

Commencing with 1968-69 the mining census has been conducted on an integrated basis with other economic censuses (manufacturing, electricity, gas, retail trade and wholesale trade) and this has entailed major changes in its scope and its structure. Although major characteristics of the mining census as now conducted are outlined below, reference should be made to Chapter 31 of *Official Year Book of the Commonwealth of Australia*, No. 56—1970 or to pages 552-63 of the *Western Australian Year Book*, No. 10—1971 where a more detailed description of the mining and other integrated economic censuses is given.

Period covered

In 1968 and earlier years, the annual mining and quarrying census related to years ended 31 December. However, commencing with 1968-69, the mining census was changed to a year ended 30 June to conform with the period covered by other integrated economic censuses in Australia.

The change in the census period from year ended 31 December to 30 June means that the 1968-69 census figures overlap the 1968 census results in regard to the period July to December 1968.

Definitions

For reasons of confidentiality only key items of data are presented in Tables 1 and 2 of this publication for broad industry groups and selected classes. The items of data are as follows:

Establishment. This refers in general to a separate physical location predominantly engaged in mining.

Number of establishments. The number of establishments in operation at end of June. These relate to mining establishments as such and do not include the numbers of separately-located administrative offices and ancillary units.

Persons employed. Working proprietors at end of June and employees on the pay-roll of the last pay-period in June including those working at separately-located administrative offices and ancillary units in the State.

Persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in the State, even though the administrative offices or ancillary units may have served establishments located in another State.

Wages and salaries. The wages and salaries of all employees of the establishment, including those working at separately-located administrative offices and ancillary units in the State. Drawing of working proprietors are not included.

Sales, transfers out and other operating revenue. Sales of minerals and other goods whether produced by the establishment or not, plus transfers out of minerals and other goods to other establishments of the same enterprise, plus all other operating revenue from outside the enterprise, such as commission, repair and service revenue. This excludes rents, leasing revenue, interest, royalties and receipts from the sale of fixed tangible assets.

Stocks at 30 June. All the stocks of materials, fuels, etc. and mine products and work-in-progress of the establishment whether located at the establishment or elsewhere.

Purchases, transfers in and selected expenses. Purchases of electricity, fuels, stores and other materials, plus transfers in of goods from other establishments of the same enterprise, plus charges for processing and other commission work and payments to mining contractors, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

Value added. Sales, transfers out and other operating revenue, plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Principles for measuring output of minerals

The quantities of individual minerals produced are recorded, in general, in the form in which the minerals are dispatched from the mine or from associated treatment works in the locality of the mine. Thus, for metallic minerals, the output is recorded as ore if no treatment is undertaken at or near the mine, and as concentrate if ore dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the content of metallic minerals (based on assay) are recorded. No allowance has been made for losses in smelting and refining and the quantities shown are therefore, in general, greater than the content actually recoverable.

The output of individual minerals is valued at the mine or at associated treatment works in the locality of the mine. This valuation is derived, in general, by valuing the quantity produced during the year at the unit selling value (including any subsidy), less any transport costs from the mine or associated treatment works at the point of sale.

It should be noted that issues of this publication prior to that for 1969-70 contained values of minerals at point of sale.

No. 1—Summary of Mining Operations by Industry Sub-Division (a)

Item	Unit	1968-69	1969-70	1970-71	1971-72
METALLIC MINERALS					
Number of establishments	No.	65	62	64	56
Persons employed (b)—					
Males	No.	6,620	*7,095	8,264	8,092
Females	No.	261	*279	548	520
Total	No.	6,881	*7,374	8,812	8,612
Wages and salaries paid	\$'000	23,749	34,121	44,387	51,446
Sales, transfers out and other operating revenue	\$'000	*218,766	333,313	*462,078	525,372
Opening stocks (c)	\$'000	16,432	25,247	34,562	44,993
Closing stocks (d)	\$'000	23,993	33,381	38,880	60,398
Purchases, transfers in and selected expenses	\$'000	80,908	*112,978	133,918	165,028
Value added	\$'000	*145,420	*228,468	*332,479	375,750
FUEL MINERALS (e)					
Number of establishments	No.	4	4	5	5
Persons employed (b)—					
Males	No.	676	*704	692	691
Females	No.	12	*10	14	14
Total	No.	688	*714	706	705
Wages and salaries paid	\$'000	2,760	*2,867	3,247	3,979
Sales, transfers out and other operating revenue	\$'000	40,022	*53,409	42,772	42,675
Opening stocks (c)	\$'000	2,358	2,414	1,624	2,205
Closing stocks (d)	\$'000	2,415	1,624	2,205	1,578
Purchases, transfers in and selected expenses	\$'000	3,430	3,031	2,587	3,638
Value added	\$'000	36,649	49,587	40,766	38,410
CONSTRUCTION MATERIALS					
Number of establishments	No.	33	26	40	42
Persons employed (b)—					
Males	No.	*375	*420	570	488
Females	No.	*16	*49	60	54
Total	No.	*391	*469	630	542
Wages and salaries paid	\$'000	*1,780	*2,218	3,023	3,408
Sales, transfers out and other operating revenue	\$'000	11,501	10,452	12,334	15,406
Opening stocks (c)	\$'000	672	*1,976	1,413	1,854
Closing stocks (d)	\$'000	1,711	2,701	2,042	1,220
Purchases, transfers in and selected expenses	\$'000	4,796	5,428	5,637	6,187
Value added	\$'000	7,744	*5,749	7,326	8,585
OTHER NON-METALLIC MINERALS					
Number of establishments	No.	26	30	32	31
Persons employed (b)—					
Males	No.	339	*414	506	545
Females	No.	16	*20	32	33
Total	No.	355	*434	538	578
Wages and salaries paid	\$'000	990	*1,717	2,937	3,554
Sales, transfers out and other operating revenue	\$'000	2,897	5,990	9,914	10,491
Opening stocks (c)	\$'000	104	*598	1,387	1,649
Closing stocks (d)	\$'000	225	1,387	2,099	3,014
Purchases, transfers in and selected expenses	\$'000	1,733	*3,710	4,762	4,871
Value added	\$'000	1,285	*3,069	5,864	6,986
TOTAL MINING					
Number of establishments	No.	128	122	141	134
Persons employed (b)—					
Males	No.	*8,010	*8,633	10,032	9,816
Females	No.	*305	*358	654	621
Total	No.	*8,315	*8,991	10,686	10,437
Wages and salaries paid	\$'000	*29,279	*40,922	53,593	62,387
Sales, transfers out and other operating revenue	\$'000	*273,186	*403,164	*527,098	593,944
Opening stocks (c)	\$'000	19,564	*30,236	38,985	50,701
Closing stocks (d)	\$'000	28,343	39,093	45,225	66,210
Purchases, transfers in and selected expenses	\$'000	90,867	*125,147	146,904	179,724
Value added	\$'000	*191,098	*286,874	*386,435	429,731

(a) Revised preliminary data for 1970-71 and provisional estimates for 1971-72. (b) At 30 June; includes working proprietors. (c) Stocks at 30 June of first year shown in column heading. (d) Stocks at 30 June of second year shown in column heading. (e) Comprises coal mining and crude petroleum including natural gas mining. * Revised.

No. 2—Summary of Mining Operations: Selected Classes (a)

Item	Unit	1968-69	1969-70	1970-71	1971-72
GOLD					
Number of establishments	No.	29	27	27	26
Persons employed (b)—					
Males	No.	*2,937	*2,168	1,975	1,989
Females	No.	45	36	35	27
Total	No.	*2,982	*2,204	2,010	2,016
Wages and salaries paid	\$'000	*10,064	*8,769	7,725	8,205
Sales, transfers out and other operating revenue	\$'000	20,349	16,140	14,215	16,196
Opening stocks (c)	\$'000	4,095	3,878	3,564	3,534
Closing stocks (d)	\$'000	4,249	3,660	3,490	3,382
Purchases, transfers in and selected expenses	\$'000	6,309	*5,233	4,412	4,910
Value added	\$'000	14,194	*10,689	9,729	11,134
IRON ORE					
Number of establishments	No.	9	10	10	10
Persons employed (b)—					
Males	No.	*2,123	*2,346	3,466	3,046
Females	No.	105	*121	374	309
Total	No.	*2,228	*2,467	3,840	3,355
Wages and salaries paid	\$'000	7,673	*13,285	20,848	22,939
Sales, transfers out and other operating revenue	\$'000	*167,001	*252,412	*336,095	378,223
Opening stocks (c)	\$'000	8,119	14,783	19,976	32,261
Closing stocks (d)	\$'000	14,186	18,670	24,651	40,784
Purchases, transfers in and selected expenses	\$'000	63,788	90,400	102,830	129,039
Value added	\$'000	*109,280	*165,899	*237,940	257,708
MINERAL SANDS					
Number of establishments	No.	4	4	4	4
Persons employed (b)—					
Males	No.	378	418	476	370
Females	No.	47	45	49	45
Total	No.	425	463	525	415
Wages and salaries paid	\$'000	1,311	1,634	2,170	2,221
Sales, transfers out and other operating revenue	\$'000	*7,286	8,553	13,302	11,482
Opening stocks (c)	\$'000	2,396	3,111	4,338	3,509
Closing stocks (d)	\$'000	3,111	4,338	3,509	4,490
Purchases, transfers in and selected expenses	\$'000	2,493	3,060	3,813	4,045
Value added	\$'000	5,507	6,720	8,659	8,419
CRUSHED AND BROKEN STONE					
Number of establishments	No.	23	17	37	33
Persons employed (b)—					
Males	No.	*340	*391	551	438
Females	No.	*13	*47	58	51
Total	No.	*353	*438	609	489
Wages and salaries paid	\$'000	*1,683	*2,134	2,958	3,292
Sales, transfers out and other operating revenue	\$'000	10,841	9,944	11,987	14,678
Opening stocks (c)	\$'000	661	1,955	1,391	1,832
Closing stocks (d)	\$'000	1,698	2,676	2,019	1,188
Purchases, transfers in and selected expenses	\$'000	4,523	5,215	5,540	5,742
Value added	\$'000	7,356	*5,450	7,076	8,292

(a) Revised preliminary data for 1970-71 and provisional estimates for 1971-72.

(c) Stocks at 30 June of first year shown in column heading.

(b) At 30 June; includes working proprietors.

(d) Stocks at 30 June of second year shown in column heading.

* Revised.

No. 3—Mineral Production
(See note *Sources of Information* on page 4.)

Item	1969-70		1970-71		1971-72 (a)	
	Quantity	Value (b)	Quantity	Value (b)	Quantity	Value (b)
	tons	\$'000	tons	\$'000	tons	\$'000
Asbestos	27	1	57	2	(c)	(c)
Barytes	419	6	520	6	....	....
Bauxite	2,860,679	(c)	4,140,243	(c)	4,740,507	(c)
Beryl	(c)	(c)	23	7	56	15
Clays—all kinds (d)	1,331,013	999	1,053,441	949	1,299,014	1,231
Coal	1,159,101	5,407	1,171,398	5,653	1,168,754	5,855
Construction materials—						
Building and monumental stone	173,773	357	106,828	281	278,793	636
Crushed and broken stone	3,428,213	10,324	4,186,028	10,144	3,767,007	10,837
Crushed and broken limestone	851,933	298	1,048,158	484	1,792,998	2,095
Copper ore for fertiliser	627	74	92	13	....	....
Copper concentrate	3,442	798	2,583	420	920	229
	barrels		barrels		barrels	
Crude oil (e)	15,582,841	44,879	16,534,837	35,570	15,975,694	32,111
	tons		tons		tons	
Felspar	604	9	457	7	590	9
	oz		oz		oz	
Gold bullion (f)	542,139	15,760	467,189	13,872	462,009	14,900
	tons		tons		tons	
Gypsum	89,281	238	197,580	597	175,199	615
Iron ore	34,029,989	195,074	45,684,080	279,478	51,834,445	316,387
Lead concentrate	271	35	186	18	(c)	(c)
Limestone for industrial purposes (g)	1,511,498	1,071	1,373,181	790	1,125,838	726
Magnesite .....	....	....	2,180	32	90	1
Manganese ore	152,209	948	142,194	477	109,749	(c)
Mineral sands—						
Ilmenite	677,743	6,300	730,905	7 034	679,578	8,016
Leucoxene	9,402	420	12,660	975	12,343	1,089
Monazite	3,550	437	3,601	471	2,794	354
Rutile	2,441	232	2,456	186	2,910	303
Xenotime	101	119	41	54	14	18
Zircon	54,537	1,350	54,270	1,360	51,373	1,147
	'000 cubic ft		'000 cubic ft		'000 cubic ft	
Natural gas	301,605	151	544,000	272	10,517,451	(c)
	tons		tons		tons	
Nickel concentrate	157,555	(c)	299,244	(c)	294,419	(c)
Ochre .....	....	....	608	6	....	....
Pyrite concentrate	10,863	125	....	....	....	....
Salt	1,014,968	3,176	2,685,717	7,092	2,573,476	7,695
Semi-precious stones	n.a.	37	n.a.	50	n.a.	63
Talc	41,388	683	30,761	483	30,411	555
	lb		lb		lb	
Tantalite concentrate	(c)	(c)	350,064	936	357	835
	tons		tons		tons	
Tin concentrate	895	1,914	945	1,939	1,434	2,808
Other (value only) (h) .....	....	48,736	....	76,984	....	101,820
Total value ex-mine .....	....	339,959	....	446,643	....	510,353

n.a. denotes 'not applicable'.

- (a) Preliminary; subject to revision.
 (b) Value is ex-mine.
 (c) Not available for publication; value included in 'Other'.
 (d) Includes production of bentonite.
 (e) Value based on price per barrel published by Ampol Petroleum Limited.
 (f) Values include amounts realised by the Gold Producers' Association Ltd. on sales of Western Australian gold—in 1969-70, \$1,780,000; in 1971-71, \$538,000; in 1971-72, \$2,232,000. They also include Commonwealth net subsidy paid to gold producers—in 1969-70, \$1,653,000; in 1970-71, \$2,467,000; in 1971-72, \$1,710,000.
 (g) Comprises limestone used for agriculture, cement making, flux, glassmaking, lime burning and iron ore pelletising.
 (h) Includes those minerals for which values are not available for publication.

No. 4—Metallic Content of Selected Minerals Produced

Metal or element	Mineral in which contained	Unit	1969-70	1970-71	1971-72 (a)
Beryllium oxide	Beryllium ore	Unit of 22.4 lb	(b)	273	627
Cobalt	Nickel concentrate	ton	170	331	164
Copper	Copper concentrate	ton	(c) (d) 692	(c) (d) 475	(c) 268
	Copper ore	ton	16	....	31
	Copper ore for fertiliser	ton	113	18	....
	Nickel concentrate	ton	1,814	2,892	2,549
Total, Copper ....	....	ton	2,635	3,385	2,848
Gold	Gold bullion	fine oz	390,727	344,545	(b)
	Copper concentrate	fine oz	(b)	(c) 689	(b)
	Pyrite concentrate	fine oz	(b)	....	....
Total, Gold ....	....	fine oz	397,135	345,234	348,758
Iron	Iron ore	'000 tons	21,514	28,875	32,754
Lead	Lead concentrate	ton	179	84	(b)
Manganese	Manganese ore	ton	76,612	64,421	47,158
Monazite content	Monazite concentrate	ton	3,309	3,349	2,615
Nickel	Nickel concentrate	ton	17,762	34,366	34,997
Palladium	Nickel concentrate	oz	....	....	....
Platinum	Nickel concentrate	oz	592	998	....
Silver	Copper concentrate	fine oz	(b)	(c) 751	(b)
	Copper ore	fine oz	(b)	....	....
	Gold bullion	fine oz	(b)	109,477	(b)
	Lead concentrate	fine oz	56	35	....
	Pyrite concentrate	fine oz	(b)	....	....
Total, Silver ....	....	fine oz	128,383	110,263	101,315
Sulphur	Pyrite concentrate	ton	4,982	....	....
Tantalite	Tantalite concentrate	lb	49,232	(b)	(b)
	Tin concentrate	lb	14,685	(b)	(b)
Total, Tantalite ....	....	lb	63,917	140,653	168,030
Tin	Tin concentrate	ton	609	(b)	1,019
	Tantalite concentrate	ton	....	(b)	....
Total, Tin ....	....	ton	609	656	1,019
Titanium dioxide	Ilmenite concentrate	ton	381,044	401,326	385,116
	Leucoxene concentrate	ton	8,304	11,125	10,936
	Rutile concentrate	ton	2,295	2,237	2,806
Total, Titanium dioxide ....	....	ton	391,643	414,688	398,858
Yttrium oxide	Xenotime concentrate	lb	47,187	21,267	8,066
Zirconium oxide	Zircon concentrate	ton	35,696	35,553	33,669

(a) Preliminary figures; subject to revision.

(b) Not available for publication.

(c) Includes amounts contained

in copper precipitate.

(d) Includes amounts contained in lead concentrate.

No. 5—Mining Accident Casualties classified according to Industry (a)

(Source: Department of Mines)

Industry	Number of persons							
	1968-69		1969-70		1970-71		1971-72	
	Killed	Seriously injured (b)	Killed	Seriously injured (b)	Killed	Seriously injured (b)	Killed	Seriously injured (b)
Metal mining—								
Bauxite .....	....	12	....	12	....	40	1	47
Copper	1	5	....	15	....	7	....	....
Gold	7	162	3	43	....	110	3	149
Iron ore	6	38	....	50	6	75	10	101
Mineral sands .....	....	20	....	12	....	9	....	8
Nickel .....	....	23	3	58	3	69	2	105
Silver-lead-zinc .....	....	....	....	....	....	....	....	....
Tin .....	....	1	....	5	....	6	....	1
Other metallic	1	2	....	....	....	....	....	....
Total metal mining	15	263	6	195	9	316	16	411
Fuel mining—								
Black coal—								
Open-cut .....	....	5	1	1	....	8	....	42
Underground .....	....	23	....	34	....	19	....	32
Crude petroleum (including natural gas) .....	....	16	....	....	....	5	4	25
Total fuel mining .....	....	44	1	35	....	32	4	99
Construction material quarrying—								
Crushed and broken stone (c) .....	....	3	....	7	1	7	....	8
Dimension stone .....	....	....	....	....	1	....	....	....
Total construction material quarrying .....	....	3	....	7	2	7	....	8
Non-metallic mineral mining—								
Salt (d) .....	....	....	1	....	1	2	....	1
Talc .....	....	....	....	....	....	1	....	1
Other non-metallic	1	....	....	....	....	....	....	1
Total non-metallic mining	1	....	1	....	1	3	....	3
TOTAL MINING	16	310	8	237	12	358	20	521

(a) Comprises accidents during mining operations, related processing and transportation. (b) Under the provisions of the Mines Regulations Act, 'serious injury shall be such as results in the injured person being disabled from following his ordinary occupation and earning his usual rate of remuneration for a period of two weeks or more.'

(c) Excludes limestone for cement, lime burning, flux and agriculture.

(d) Includes solar salt mining.

No. 6—Leases, Licences, Permits, Rights, etc. in Force under the Mining Act and Special Acts
(Source: Department of Mines)

Particulars	At 31 December—					
	1970		1971		1972	
	Leases, etc. in force	Area of leases, etc.	Leases, etc. in force	Area of leases, etc.	Leases, etc. in force	Area of leases, etc.
	No.	acres	No.	acres	No.	acres
<i>Under the Mining Act—</i>						
Gold—						
Gold mining leases	1,375	26,308	1,370	26,022	1,410	27,154
Dredging claims	5	1,182	2	600	10	1,878
Prospecting areas	221	4,191	149	2,801	306	5,744
Temporary reserves	173	49,949	42	11,083	1	188
Total	1,774	81,630	1,563	40,506	1,727	34,964
Coal—						
Coal mining leases	52	15,016	52	15,016	62	17,325
Prospecting areas .....	....	....	15	43,920	....	....
Temporary reserves	2	4,320	2	4,320	3	53,741
Total	54	19,336	69	63,256	65	71,066
Other minerals—						
Mineral leases	299	45,933	347	59,731	412	77,312
Dredging claims	413	32,982	411	38,093	342	34,785
Mineral claims	20,272	5,344,357	27,795	7,593,074	15,286	4,032,159
Prospecting areas	86	2,023	34	751	32	697
Temporary reserves	655	40,615,982	534	30,115,538	518	19,607,429
Total	21,725	46,041,277	29,121	37,807,187	16,590	23,752,382
Other holdings—						
Miners' homestead leases	335	33,786	334	33,373	324	32,631
Miscellaneous leases	102	1,660	104	1,817	177	19,199
Residence areas	62	50	62	51	58	48
Business areas	26	15	28	24	26	22
Machinery areas	26	78	21	57	21	56
Tailings areas	24	97	24	89	21	79
Garden areas	70	243	70	245	67	240
Quarrying areas	45	854	87	1,701	125	2,524
Water rights	141	3,210	125	2,781	105	2,054
Licences to treat tailings	22	....	54	....	43	....
Total	853	39,993	909	40,138	967	56,853
Total under the Mining Act	24,406	46,182,236	31,662	37,951,087	19,349	23,915,265
<i>Under Special Acts—</i>						
Bauxite	7	3,137,280	7	3,137,280	7	3,137,280
Iron	4	419,106	5	451,106	6	612,478
Salt	2	593,430	2	593,430	3	596,430
Total under Special Acts	13	4,149,816	14	4,181,816	16	4,346,188
GRAND TOTAL	24,419	50,332,052	31,676	42,132,903	19,365	28,261,453

No. 7—Leases, Licences, and Permits in Force under Petroleum Acts
(Source: Department of Mines)

Holding	At 31 December—					
	1970		1971		1972	
	No.	Blocks (a)	No.	Blocks (a)	No.	Blocks (a)
<i>Petroleum Act, 1967—</i>						
Exploration permits	38	5,517	53	6,510	63	8,036
Production licences .....	.....	.....	3	14	3	14
Petroleum lease (Barrow Is.)	1	8	1	8	1	8
Total	39	5,525	57	6,532	67	8,058
<i>Petroleum Pipelines Act, 1969—</i>						
Pipeline licence	1	(b)	3	(c)	5	(d)
Total	1	(b)	3	(c)	5	(d)
<i>Offshore—</i>						
<i>Petroleum (Submerged Lands) Act, 1967—</i>						
Exploration permits	35	8,808	34	8,727	39	10,171
Production licences .....	.....	.....	.....	.....	.....	.....
Petroleum lease (Barrow Marine)	1	12	1	12	1	12
Total	36	8,820	35	8,739	40	10,183
GRAND TOTAL	75	14,345	92	15,271	107	18,241

(a) A 'block' is a section of land 5 minutes of longitude in width and 5 minutes of latitude in length and having an average area of approximately 30 square miles but which, depending on the latitude, may range between 24 and 36 square miles.
 (b) 252·8 miles. (c) 272·4 miles. (d) 276·4 miles.

No. 8—The Perth Mint: Summary of Operations
(Source: The Perth Mint)

Year	Persons employed (a)	Expenditure				Net revenue
		Salaries and wages	Allowances paid to retired staff	Other contingencies (b)	Total	
	No.	\$	\$	\$	\$	\$
1968	102	381,406	*17,345	75,682	474,433	493,952
1969	93	370,150	20,038	74,344	464,532	472,506
1970	*85	374,779	12,641	98,657	486,077	474,999
1971	85	394,743	1,101	140,237	536,081	365,053
1972	81	404,713	2,345	158,779	565,837	361,324

Year	Gold bullion received		Gold bullion issued		Silver bullion issued		Bronze coin produced
	Gross oz	Value (c)	Fine oz	Value (c)	Fine oz	Value	
		\$		\$		\$	\$
1968	893,872	5,161,152	607,403	5,160,158	219,623	449,226	457,100
1969	1,181,288	5,911,911	696,479	5,916,909	449,538	723,283	.....
1970	934,543	3,937,932	463,263	3,935,632	413,974	649,311	.....
1971	1,160,533	5,504,809	598,810	5,087,164	445,813	635,459	.....
1972	680,948	4,395,545	517,331	4,394,963	133,320	190,066	.....

(a) Average over whole year. (b) Includes all capital expenditure, e.g. new machinery, etc. (c) Gold valued at \$7·7875 per standard ounce and excludes premium. * Revised.

NOTES ON STATISTICS OF MINERAL EXPLORATION

Tables 9 to 12 contain annual details of mineral exploration in Western Australia. The statistics on exploration for minerals other than petroleum, published in Tables 9 and 10 are derived from the annual mineral exploration census, which is carried out by the Bureau of Census and Statistics and which does not include exploration for petroleum and natural gas. Information given in Tables 11 and 12 relating to petroleum and gas exploration is compiled by the Bureau of Mineral Resources, Geology and Geophysics.

It should be noted that the scope of the data collected by the Bureau of Mineral Resources, Geology and Geophysics differs in some respects from the scope of the data collected by the Bureau of Census and Statistics in regard to exploration for minerals other than petroleum. The differences are mainly in definition of terms and range of data collected and there is not, therefore, complete comparability between the two series.

Mineral Exploration Census (excluding Petroleum Exploration)

For 1968 and earlier years the annual mineral exploration census (excluding petroleum exploration) related to the years ended 31 December. As from 1968-69, the reporting period for this census has been changed to a year ended 30 June, to conform with a similar change in the annual mining census. In Table 10 a double line is drawn between columns for 1968 and 1968-69 to indicate this break in continuity of the series. It should be noted that data for the six months ended 31 December 1968 are therefore included in both the 1968 and the 1968-69 figures in this table.

For the purposes of the census, mineral exploration consists of the search for and/or appraisal of new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical, and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities (which include the construction of drives, shafts, winzes, etc.) in underground mines and the preparation of quarrying sites for open-cut extraction (including over-burden removal) carried out primarily for the purpose of commencing or extending mining and quarrying operations.

Information on private exploration is divided into three categories:

- (i) Private exploration on production leases, which relates to exploration carried out on production leases by privately operated mines currently producing or under development for production of minerals other than petroleum.
- (ii) Private exploration on other areas, which relates to exploration carried out on areas such as mineral claims, temporary reserves, etc. covered by authorities to enter, authorities to prospect and similar licences and authorities issued by the State Government for exploration for minerals other than petroleum.
- (iii) Other private exploration, which relates to exploration not directly connected with areas under lease, licence, etc. including general surveys, aerial surveys, report writing, map preparation and other off-site activities not directly attributable to particular lease or licence areas.

Information given in Table 9 on State Government exploration relates to exploration carried out by the Western Australian Department of Mines. Information on Commonwealth Government exploration is not available separately for States.

Definitions of terms used in Tables 9 and 10 are as follows:

Core drilling. Diamond drilling or any kind of drilling in which drill cores are taken.

Non-core drilling. Alluvial, percussion and other drilling in which drill cores are not taken.

Shaft. Vertical or sloping access to underground mineral deposit.

Adit. Horizontal or inclined access to underground mineral deposit usually from hillside.

Drive. A tunnel or level in (or parallel to and near) a mineral deposit.

Winze. Internal shaft in mine, usually connecting two levels in plane of lode.

Costean. A trench excavated to expose an ore deposit or to determine the direction of an ore body

Petroleum Exploration

For the purpose of the statistical series compiled and published by the Bureau of Mineral Resources, Geology and Geophysics, petroleum and exploration consists of the search for and/or appraisal of deposits of crude petroleum and/or gas by geological, geophysical, geochemical and other means, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the costs of access roads, site construction, permits, licences and similar fees, relevant office building and furniture, transportation equipment, storage facilities, plant and equipment and review work if primarily for purposes of exploration for deposits of petroleum or natural gas. The cost of drilling developmental oil and/or gas wells and expenditure on production facilities and pipelines, and production costs, etc. are excluded.

Petroleum exploration data relate to years ended 31 December.

Information on direct Government expenditure on petroleum exploration is not available separately for States and Table 11 therefore relates to private exploration only. It should be noted, however, that expenditure shown in this table includes amounts of subsidy received from the Commonwealth Government.

No. 9—Mineral Exploration (other than for Petroleum) Expenditure, Employment, and Footage Drilled, Sunk or Driven: 1971-72

Particulars	Private exploration				State Government exploration (b)	Total (incl. State Government)
	On production leases	On other licensed areas	Other exploration (a)	Total		
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Exploration expenditure (c)—						
Salaries and wages paid	2,705	11,324	859	14,888	232	15,120
Materials purchased for exploration	1,803	4,952	472	7,227	136	7,363
Expenditure on fixed tangible assets for exploration purposes	2,837	2,359	253	5,448	44	5,492
Other expenses (including travelling expenses, office expenses, etc.)	1,531	15,735	941	18,208	8	18,215
Payments to contractors (d)	2,588	13,858	606	17,052	....	17,052
Total exploration expenditure	11,465	48,228	3,130	62,823	419	63,242
Expenditure on drilling	4,219	11,007	....	15,226	....	15,226
Other expenditure (e)	7,246	37,221	3,130	47,597	419	48,016
	man-weeks	man-weeks	man-weeks	man-weeks	man-weeks	man-weeks
Employment (f)—						
Working proprietors and working partners	174	1,485	131	1,790	....	1,790
Professional persons (g)	9,262	28,736	3,320	41,318	1,088	42,406
Non-professional persons (h)	11,821	56,760	2,764	71,345	1,020	72,365
Total	21,257	86,981	6,215	114,453	2,108	116,561
	feet	feet	feet	feet	feet	feet
Total footage drilled, sunk or driven—						
Drilled—						
Core	361,157	640,621	....	1,001,778	....	1,001,778
Non-core	1,265,712	4,280,548	....	5,546,260	....	5,546,260
Total	1,626,869	4,921,169	....	6,548,038	....	6,548,038
Sunk or driven (i)	13,204	98,078	....	111,282	....	111,282

(a) Not attributable to particular lease or licence areas. (b) Exploration by the Western Australian Department of Mines only. (c) Expenditure whether charged as working expenses or capitalised. (d) Amounts paid to drilling contractors, geological consultants, technical advisers, etc. for exploration services. (e) Includes expenditure on geological work and on adits, shafts, etc. (f) Comprises the operator and his staff only; includes time spent on report writing and similar off-site activities associated with exploration; excludes contractors and their employees. (g) Geologists, geophysicists, engineers, etc. engaged in exploration work. (h) Drill operators, field hands, etc. (i) Includes shafts, winzes, etc. sunk; drives, adits, etc. driven and costeans, small pits, etc.

No. 10—Private Mineral Exploration (other than for Petroleum) (a)
Expenditure, Employment, and Footage Drilled, Sunk or Driven

Particulars	Unit	1968	1968-69 (b)	1969-70	1970-71	1971-72
Expenditure (c)—						
On drilling	\$'000	6,467	10,464	14,293	21,507	15,226
Other (d)	\$'000	16,681	24,948	45,527	64,574	47,597
Total	\$'000	23,148	35,412	59,821	86,082	62,823
Payments to contractors (e)	\$'000	7,586	13,661	20,111	30,044	17,052
Employment (f)—						
Working proprietors and working partners	man-week	(g)	(g)	(g)	4,361	1,790
Professional persons (h)	man-week	14,463	18,336	26,256	36,638	41,318
Non-professional persons (i)	man-week	38,374	49,338	77,057	94,477	71,345
Total	man-week	52,837	67,674	103,313	135,476	114,453
Footage drilled, sunk or driven—						
Drilled—						
Core	foot	714,829	999,148	1,180,220	1,205,388	1,001,778
Non-core	foot	1,030,282	1,371,813	5,095,815	5,208,178	5,546,260
Total	foot	1,745,111	2,370,961	6,276,035	6,413,566	6,548,038
Sunk or driven (j)	foot	22,720	121,590	68,033	247,415	111,282

(a) Excludes exploration by the Western Australian Department of Mines and the Commonwealth Bureau of Mineral Resources, Geology and Geophysics. (b) The annual mineral exploration census was changed to a fiscal year basis, commencing with the year ended 30 June 1969. (c) Expenditure whether charged as working expenses or capitalised. Includes payments to contractors. (d) Includes expenditure on geological work and on adits, shafts, etc. (e) Amounts paid to drilling contractors, geological consultants, technical advisers, etc. for exploration services. Included in preceding figures. (f) Comprises the operator and his staff only; includes time spent on report writing and similar off-site activities associated with exploration; excludes contractors and their employees. (g) Not collected as a separate item prior to 1970-71. (h) Geologists, geophysicists, engineers, etc. engaged in exploration work. (i) Drill operators, field hands, etc. (j) Includes shafts, winzes, etc. sunk; drives, adits, etc. driven and costeans, small pits, etc.

No. 11—Private Petroleum Exploration: Expenditure and Source of Funds

(Source: Bureau of Mineral Resources, Geology and Geophysics)
(\$'000)

Particulars	1967	1968	1969	1970	1971
Private expenditure (a)—					
Geological	1,159	449	516	801	1,408
Geophysical	7,282	6,026	6,684	8,876	9,126
Drilling	6,397	17,463	23,847	21,771	32,162
Other	390	1,621	1,432	2,714	2,766
Total	15,229	25,560	32,480	34,161	45,462
Source of funds—					
Private sources	11,788	21,532	26,194	29,557	41,872
Government subsidy (b)	3,441	4,027	6,286	4,604	3,590

(a) Includes expenditure financed by payments under the *Petroleum Search Subsidy Act* 1959-1969 (Commonwealth).
(b) Comprises payments under the *Petroleum Search Subsidy Act* 1959-1969.

No. 12—Petroleum Exploration: Summary of Wells and Footage Drilled

(Source: Bureau of Mineral Resources, Geology and Geophysics)

Particulars	1967	1968	1969	1970	1971
Wells—					
Drilled (i.e. those which reached final depth)—					
As oil producers	No. 2	1	....	1	....
As gas producers	No. 1	1	1	....	1
Plugged and abandoned	No. 25	24	22	14	29
Total	No. 28	26	23	15	30
Average final depth of wells drilled	ft 5,444	5,832	7,500	6,654	8,363
Drilling still in progress at 31 December (un-completed holes)	No. 3	4	1	4	1
Wells drilled or drilling over 10,000 feet	No. 3	5	9	5	14
Footage drilled—					
Completed wells	ft 139,643	145,250	142,148	91,037	222,150
Uncompleted holes	ft 7,714	30,329	10,871	28,737	10,857
Total	ft 147,357	175,579	153,019	119,774	233,007

FISHERIES (INCLUDING WHALING)

NOTE. Catch and effort data contained in Tables 13 to 20 are compiled by the Western Australian Office of the Commonwealth Bureau of Census and Statistics from monthly returns collected by the Western Australian Department of Fisheries and Fauna from licensed commercial fishermen. Data relating to activities of amateur fishermen are not included.

Details of the value of fish, crustaceans and molluscs caught have been compiled by the Western Australian Office of the Bureau of Census and Statistics using data obtained from fish dealers, fish processors and fishermen's co-operatives. The values shown represent gross value paid to fishermen.

No. 13—Fish, Crustaceans and Molluscs: Catch and Value (a)

Species—Common name	Quantity ('000 lb)			Value (\$'000)		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Fish—						
Anchovy (Whitebait)	114	176	92	17.1	15.8	14.7
Bream, black	10	18	41	2.2	4.1	11.5
Bream, buffalo	60	55	50	3.0	2.7	1.5
Bream, western yellowfin	18	28	11	2.4	3.3	2.0
Cobbler	234	383	419	37.7	53.6	76.2
Cod	42	43	51	5.1	5.8	7.7
Emperor (North-west snapper)	54	60	43	7.5	8.8	6.3
Emperor, red	(b)	38	41	(c)	6.4	8.6
Flathead, dusky	15	17	19	1.8	1.7	2.1
Garfish, sea	44	60	55	6.1	8.3	7.1
Groper, blue, brown or red	33	54	57	4.2	8.1	9.4
Herring, Perth	183	367	519	12.8	36.7	51.9
Jewfish, Westralian	301	291	186	105.4	116.1	87.0
Leatherjacket	23	27	29	2.9	4.0	3.4
Mackerel, scaly	60	58	65	3.6	8.2	5.2
Mackerel, Spanish	131	96	66	21.0	18.2	12.0
Mullet, sea	782	692	1,003	78.2	89.9	140.4
Mullet, yellow-eye	764	673	560	61.2	60.6	61.6
Mulloway (River kingfish)	13	19	13	1.0	1.4	1.1
Perch, giant (Barramundi)	22	31	38	1.2	3.5	4.3
Pilchard	309	439	309	27.8	57.0	49.4
Ruff (Sea herring)	1,353	1,615	2,003	*47.4	64.6	100.1
Salmon, Australian	4,713	3,628	3,869	188.5	174.2	216.7
Samson fish (Sea kingfish)	100	61	95	9.8	7.7	7.6
Shark	826	1,034	1,114	104.0	149.6	168.1
Snapper	455	423	412	61.9	67.7	59.3
Tailor	112	102	100	10.1	15.3	15.0
Trevally (Skipjack)	45	24	30	4.1	4.2	3.9
Tuna	1,122	1,229	1,402	78.5	86.1	124.0
Whiting, King George	131	154	165	23.5	38.4	59.4
Whiting, western sand	425	343	362	76.6	65.2	101.3
Other species	*100	104	129	*12.5	12.5	17.5
Total Fish	12,592	12,339	13,347	1,018.8	1,199.7	1,436.5
Crustaceans—						
Crabs	68	107	118	17.8	48.1	35.3
Prawns—						
Banana	260	321	203	88.4	144.4	113.7
Brown tiger	2,942	2,570	1,893	1,529.6	1,310.8	1,041.1
Endeavour	258	597	344	80.0	191.1	71.1
Green-tail	157	53	57	42.5	21.2	34.3
Western king	1,875	2,637	3,165	956.1	1,318.7	1,709.3
Total Prawns	5,492	6,179	5,662	2,696.6	2,986.3	2,969.5
Rock lobsters	15,335	17,861	18,334	12,114.9	18,040.0	22,183.9
Total Crustaceans	20,896	24,147	24,114	14,829.3	21,074.4	25,188.6
Molluscs—						
Abalone	38	266	540	7.5	69.7	141.7
Scallops	2,862	3,897	109	200.4	214.1	6.6
Other molluscs	39	28	43	6.4	5.3	7.6
Total Molluscs	2,939	4,191	692	214.2	289.1	155.9
TOTAL, WESTERN AUSTRALIA (a) ....	....	....	....	16,062.3	22,563.2	26,781.0

(a) Excludes aquatic reptiles, details of which are not available for publication.
* Revised.

(b) Less than 500 lb.

(c) Less

No. 14—Fish and Crustaceans: Catch by Fishing Locality (a): 1971-72
(‘000 lb)

Fishing locality	Fish	Crabs	Prawns	Rock lobsters	Total
Esperance	220	.....	.....	15	234
Doubtful Island	209	.....	.....	.....	209
Bremer Bay	652	.....	.....	.....	652
Cheyne Beach	1,520	.....	.....	.....	1,520
Cape Riche	160	.....	.....	.....	160
Two Peoples Bay	45	.....	.....	.....	45
Betty's Bay	5	.....	.....	3	8
Nanarup	59	.....	.....	.....	59
Albany	3,001	1	1	(b)	3,003
Torbay	356	.....	.....	.....	356
Wilson Inlet	90	.....	.....	.....	90
Parry Inlet	169	.....	.....	.....	169
Peaceful Bay	275	.....	.....	.....	275
Hardy Inlet	316	.....	.....	(b)	317
Hamelin Bay	271	.....	.....	5	276
Margaret River	16	.....	.....	13	30
Quindalup	157	.....	.....	.....	157
Busselton	901	.....	.....	9	910
Bunbury	521	19	12	35	586
Mandurah	1,249	42	42	157	1,490
Safety Bay	35	2	.....	169	206
Rockingham	1	.....	.....	51	52
Perth	459	29	(b)	2	490
Fremantle	651	25	2	1,796	2,474
Whitfords Beach	27	.....	.....	36	63
Quinns	2	.....	.....	82	83
Yanchep	48	.....	.....	236	284
Wreck Point	5	.....	.....	212	217
Cape Leschenault	34	.....	.....	528	562
Ledge Point	6	.....	.....	575	581
Lancelin	8	.....	.....	1,451	1,459
Wedge Island .....	.....	.....	.....	196	196
Green Island	6	.....	.....	330	336
Cervantes Island	16	.....	.....	875	891
Jurien Bay	54	.....	.....	1,390	1,444
Green Head	6	.....	.....	627	632
Snag Island	8	.....	.....	621	629
Beagle Island .....	.....	.....	.....	260	260
Freshwater Point .....	.....	.....	.....	614	614
Port Denison	34	.....	.....	2,119	2,153
Seven-Mile Beach .....	.....	.....	.....	151	151
Geraldton	22	.....	.....	1,581	1,603
Pelsart Island	31	.....	.....	1,179	1,209
Easter Island	8	.....	.....	891	900
Wallabi Island	6	.....	.....	644	650
North Island	4	.....	.....	461	465
Drummond Cove .....	.....	.....	.....	62	62
Coronation Beach	1	.....	.....	53	54
Horrocks Beach	2	.....	.....	80	82
Port Gregory	9	.....	.....	109	117
Murchison River	33	.....	13	561	607
Denham	757	(b)	3,059	17	3,834
Carnarvon	51	.....	677	4	732
Exmouth Gulf	196	.....	1,629	5	1,830
Point Samson	5	.....	188	.....	193
Other localities	630	(b)	39	126	795
TOTAL, WESTERN AUSTRALIA	13,347	118	5,662	18,334	37,461

(a) Fishing locality is the anchorage from which the fishermen operate.

(b) Less than 500 lb.

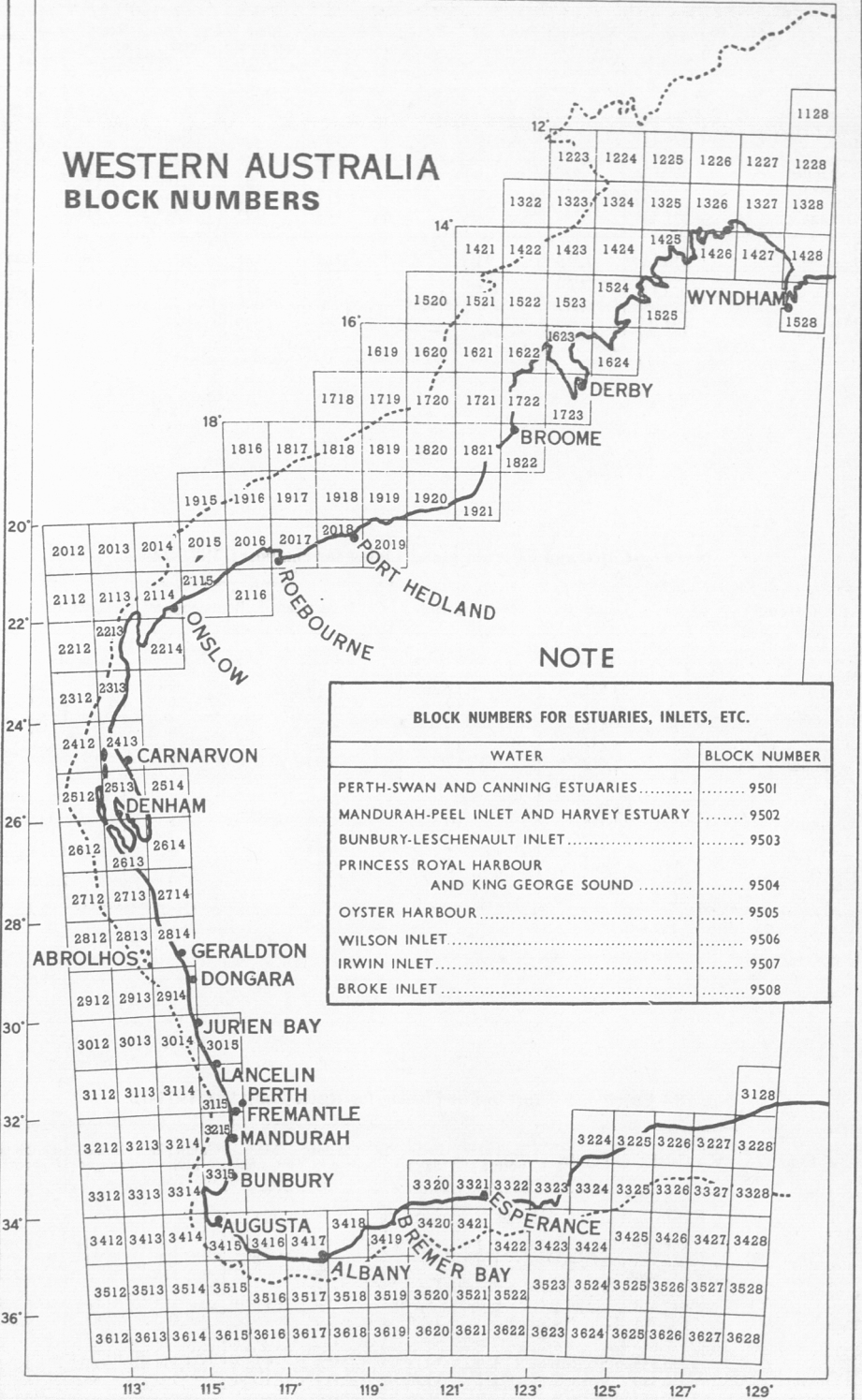
No. 15—Fish and Crustaceans: Catch by Fishing Blocks (a): 1971-72
(⁰⁰⁰ lb)

Block number	Fish	Crabs	Prawns	Rock lobsters	Total
1528	29	....	....	....	29
1822	25	(b)	....	....	25
1919	(b)	....	....	....	(b)
2016	3	....	24	....	27
2017	1	....	144	....	146
2113	13	....	....	11	25
2114	98	....	309	(b)	407
2213	50	....	....	(b)	50
2214	134	....	1,327	2	1,463
2412	95	....	....	....	95
2413	43	....	401	....	444
2512	29	....	....	....	29
2513	209	....	2,389	....	2,600
2613	408	....	....	5	413
2713	13	....	....	349	362
2714	21	....	....	197	218
2813	59	....	37	3,155	3,251
2814	15	....	....	1,523	1,537
2913	3	....	....	145	148
2914	54	....	....	3,994	4,048
3013	....	....	....	61	61
3014	75	....	....	3,073	3,148
3015	27	....	....	690	717
3112	....	....	....	37	37
3113	....	....	....	58	58
3114	6	....	....	473	479
3115	535	(b)	1	3,501	4,037
3214	(b)	....	....	3	3
3215	382	23	2	780	1,187
3313	29	....	....	....	29
3314	572	....	....	10	582
3315	823	1	3	50	877
3414	446	....	....	16	462
3415	92	....	....	4	96
3416	366	....	....	(b)	366
3417	143	....	....	....	143
3418	2,594	....	....	(b)	2,594
3419	1,043	....	....	(b)	1,043
3516	137	....	....	....	137
3517	1,642	....	....	(b)	1,642
3518	356	....	....	....	356
9501	483	32	(b)	21	537
9502	1,103	42	40	....	1,185
9503	216	18	12	....	246
9504	233	....	....	(b)	233
9505	189	....	....	....	189
9506	105	....	....	....	105
9508	30	....	....	....	30
Other blocks	418	(b)	972	175	1,565
TOTAL, WESTERN AUSTRALIA	13,347	118	5,662	18,334	37,461

(a) The geographical location of the fishing blocks is shown in the map opposite.

(b) Less than 500 lb.

WESTERN AUSTRALIA BLOCK NUMBERS



No. 16—Catch and Effort in Haul Netting and Beach Seining: 1971-72

Month	Catch	Man-days worked	Catch per man-day	Boat-days	Catch per boat-day	Men engaged	Catch per man	Boats engaged	Catch per boat
	lb	No.	lb	No.	lb	No.	lb	No.	lb
1971—									
July	387,461	3,262	119	2,070	187	194	1,997	128	3,027
August	206,450	2,873	72	1,781	116	192	1,075	126	1,638
September	187,702	2,658	71	1,844	102	182	1,031	126	1,490
October	229,544	2,914	79	2,052	112	193	1,189	136	1,688
November	255,897	3,338	77	2,299	111	207	1,236	147	1,741
December	245,263	3,295	74	2,281	108	197	1,245	140	1,752
1972—									
January	310,968	3,359	93	2,434	128	181	1,718	136	2,287
February	185,703	2,191	85	1,518	122	123	1,510	88	2,110
March	2,952,453	6,967	424	3,341	884	313	9,433	172	17,165
April	2,229,066	6,019	370	3,097	720	308	7,237	175	12,738
May	504,760	4,289	118	2,694	187	254	1,987	164	3,078
June	585,836	3,698	158	2,327	252	226	2,592	146	4,013

No. 17—Catch and Effort in Hand Lining for Snapper: 1971-72

Month	Catch	Men engaged	Catch per man	Boats engaged	Catch per boat
	lb	No.	lb	No.	lb
1971—					
July	33,621	17	1,978	9	3,736
August	20,761	10	2,076	6	3,460
September	3,576	4	894	2	1,788
October	342	7	49	4	86
November	2,405	13	185	7	344
December	8,419	17	495	10	842
1972—					
January	8,048	24	335	15	537
February	3,735	10	374	5	747
March	3,812	14	272	7	545
April	3,221	5	644	3	1,074
May	2,561	10	256	5	512
June	18,216	15	1,214	7	2,602

No. 18—Catch and Effort in Pot Fishing for Rock Lobsters: 1971-72

Month	Catch	Potlifts	Catch per potlift	Boat-days	Catch per boat-day	Men engaged	Catch per man	Boats engaged	Catch per boat
	lb	No.	lb	No.	lb	No.	lb	No.	lb
1971—									
July	861,323	667,677	1.2	9,008	96	1,080	798	539	1,598
August	268,326	255,447	1.0	3,424	78	872	308	438	613
September	696	525	1.3	23	30	6	116	3	232
October .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	513,616	608,982	0.8	6,940	74	1,640	313	706	728
December	5,083,781	1,864,844	2.7	20,369	250	1,926	2,640	816	6,230
1972—									
January	2,439,232	1,256,561	1.9	14,003	174	1,857	1,314	788	3,095
February	1,256,330	990,456	1.2	11,045	114	1,586	792	662	1,898
March	3,134,243	1,509,879	2.0	16,937	185	1,921	1,632	817	3,836
April	2,742,662	1,453,367	1.8	16,665	165	1,873	1,464	808	3,394
May	1,255,367	912,115	1.3	11,224	112	1,450	866	664	1,891
June	765,772	675,190	1.1	8,484	90	1,183	647	547	1,400

No. 19—Catch and Effort in Trawling for Prawns (a): 1971-72

Month					Catch	Shots	Catch per shot	Boat-hours	Catch per boat-hour	Boat-days	Catch per boat-day	Men engaged	Catch per man	Boats engaged	Catch per boat
					lb	No.	lb	No.	lb	No.	lb	No.	lb	No.	lb
1971—															
July	....	....	....	....	550,460	6,110	90	12,168	45	1,085	507	201	2,739	58	9,491
August	....	....	....	....	266,661	3,763	71	7,562	35	732	364	160	1,667	48	5,555
September	....	....	....	....	191,658	2,400	80	4,882	39	491	390	110	1,742	33	5,808
October	....	....	....	....	114,344	1,424	80	3,064	37	299	382	76	1,505	23	4,971
November	....	....	....	....	36,223	560	65	1,110	33	107	339	35	1,035	12	3,019
December	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1972—															
January	....	....	....	....	8,854	177	50	326	27	37	239	34	260	8	1,107
February	....	....	....	....	217,282	2,570	85	4,459	49	450	483	136	1,598	32	6,790
March	....	....	....	....	747,336	6,901	108	12,237	61	1,137	657	205	3,646	53	14,101
April	....	....	....	....	1,337,218	8,831	151	15,112	88	1,387	964	208	6,429	57	23,460
May	....	....	....	....	1,194,070	8,487	141	13,441	89	1,309	912	186	6,420	55	21,710
June	....	....	....	....	882,741	7,553	117	13,112	67	1,198	737	171	5,162	52	16,976

(a) The distribution of effort data has been estimated for those boats which caught both prawns and scallops in the same month. Scallops were caught by trawling only in the month of October, and as catch by this method was insignificant in 1971-72 details of catch and effort in trawling for scallops have not been shown separately.

No. 20—Fish and Crustaceans: Catch by Method: 1971-72
(‘000 lb)

Particulars	Haul net and beach seining	Hand lining (a)	Trawling	Pot fishing for rock lobsters	Other methods	Total
Fish	8,099	109	....	....	5,139	13,347
Crabs	84	....	....	....	34	118
Prawns	90	....	5,547	....	25	5,662
Rock lobsters	(b)	....	....	18,321	12	18,334
Total	8,273	109	5,547	18,321	5,210	37,461

(a) Snapper only. Catch of other species by hand lining is included in ‘Other methods’. (b) Less than 500 lb.

No. 21—Whaling (a)

Particulars	1968	1969	1970	1971	1972
Sperm whales taken No. tons	658	679	799	860	953
Oil produced (b) tons	3,912	4,357	5,281	6,069	5,772

(a) Figures have been derived from information provided by the Fisheries Branch of the Commonwealth Department of Primary Industry. (b) 1 ton = 6 barrels (approximately).

FORESTRY

No. 22—Area under Forest, Production, and Employment

Particulars	1969-70	1970-71	1971-72
Exploitable areas under forest (a)—	‘000 acres	‘000 acres	‘000 acres
Natural forest	5,050	5,033	5,052
Plantations —			
Coniferous	69	81	79
Broadleaved	19	19	19
Total	5,138	5,133	5,150
Forest areas under reservation (b)—			
State forests	4,461	4,477	4,507
Timber reserves under Forests Act and Land Act (a)	273	278	276
Total	4,734	4,755	4,783
Production—	‘000 cu ft	‘000 cu ft	‘000 cu ft
Logs for sawing, peeling, slicing, etc.—			
Forest broadleaves	42,877	43,055	39,235
Plantation-grown pines	2,924	3,102	3,251
Hewn and other timber	26,845	28,255	28,729
Employment (c)—			
Forest Department employment—	number	number	number
Foresters	51	53	54
Extraction (d)	35	17	29
Other	841	813	823
Other forest employment—			
Extraction (d)	958	734	817
Other	450	400	400
Total	2,335	2,017	2,123

(a) Excludes areas of woodlands which, prior to 1969-70, were classified as forests. (b) Excludes Flora and Fauna Reserves, Scenic Reserves, National Parks, etc. (c) Excludes employment in private and government-operated saw mills. (d) Felling, carting, etc.

VALUE OF PRIMARY PRODUCTION

(excluding Mining and Quarrying)

DEFINITIONS OF TERMS USED

Gross Value is the value placed on recorded production at the wholesale price realised at the principal market. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are taken as the principal markets.

Marketing Costs comprise freight, cost of containers, commission, and other charges incurred in marketing.

Local Value is the value recorded at the place of production, and is obtained by deducting *Marketing Costs* from *Gross Value*.

Cost of Goods Consumed in the Process of Production covers seed and fertilisers used, pickling, sprays, dips, fodder consumed, fuel and oil, and other selected costs of a similar nature.

Net Value represents the return to the producer (farmer, pastoralist, fisherman, etc.) and is the sum available for payment of wages, interest, rent, depreciation, other overhead costs, and for the producer's own income. It is obtained by deducting from *Local Value* the *Cost of Goods Consumed in the Process of Production*.

Gross and *Local Values* of primary production involve some duplication as they include the products of certain primary industries which are consumed as raw materials by other industries in the group (e.g. hay consumed by livestock). Furthermore, many of the materials consumed by primary industries are the products of secondary industry. However, duplication has been eliminated in calculating the *Net Value* of primary production by deducting the cost of both primary and secondary products consumed by primary industries. Therefore, *Net Value* of primary production should be used when comparing values for primary industries with equivalent values for secondary industry.

MINING AND QUARRYING

Estimates of mining and quarrying values, as compiled and published in earlier editions of this bulletin for calendar years up to and including 1968, have been discontinued. They have been replaced by information obtained on a fiscal year basis in the 1968-69 integrated economic censuses (of which mining and quarrying form a sector) and subsequent censuses of mining and quarrying. Values derived from the 1968-69 and subsequent censuses are not directly comparable with figures for previous years because of changes in the census units, the scope of the census and the items of data.

Particulars of mining and quarrying activity derived from the 1968-69 and subsequent economic censuses, together with explanatory notes, are given in the first section of this publication.

No. 23—Value of Primary Production (excluding Mining and Quarrying) (a)

Season or year	Gross Value (based on principal market prices) \$'000	Marketing costs \$'000	Local Value (at source of production) \$'000	Goods consumed in process of production \$'000	Net Value \$'000
Fishing (b)					
1967-68	21,954	148	21,805	1,386	20,419
1968-69	23,717	118	23,600	1,361	22,239
1969-70	19,660	124	19,536	1,547	17,989
1970-71	25,127	99	25,028	1,373	23,655
1971-72	30,817	191	30,625	1,536	29,089
Forestry (exclusive of Milling)					
1967-68	14,076	803	13,273	|	13,273
1968-69	13,465	874	12,591	|	12,591
1969-70	13,632	837	12,795	(c)	12,795
1970-71	16,174	1,329	14,845	|	14,845
1971-72	14,660	1,372	13,288	|	13,288
Hunting					
1967-68	1,236	336	900	|	900
1968-69	1,211	398	813	|	813
1969-70	1,098	328	770	(c)	770
1970-71	834	242	592	|	592
1971-72	838	198	640	|	640
Total Fishing, Forestry and Hunting					
1967-68	37,266	1,287	35,979	1,386	34,593
1968-69	38,392	1,389	37,003	1,361	35,642
1969-70	34,390	1,288	33,102	1,547	31,555
1970-71	42,135	1,670	40,465	1,373	39,092
1971-72	46,315	1,761	44,553	1,536	43,017
Rural Industries (d)					
1967-68	428,258	49,782	378,476	82,673	295,803
1968-69	468,224	54,842	413,382	90,776	322,606
1969-70	370,557	43,822	326,735	94,755	231,980
1970-71	446,113	60,636	385,477	86,688	298,789
1971-72	460,610	57,365	403,245	84,909	318,336
Total Primary (excluding Mining and Quarrying)					
1967-68	465,524	51,069	414,455	84,059	330,396
1968-69	506,617	56,232	450,385	92,137	358,248
1969-70	404,947	47,388	359,837	96,302	263,535
1970-71	488,248	62,306	425,942	88,061	337,881
1971-72	506,925	59,126	447,799	86,445	361,353

(a) See letterpress on page 23. (b) Includes pearling and whaling. (c) Not available. (d) Comprises agriculture, bee keeping, dairying, pastoral industry and poultry farming.

STATISTICAL PUBLICATIONS

25

Issued by the Deputy Commonwealth Statistician and Government Statistician,
1-3 St George's Terrace, Perth

PRINTED PUBLICATIONS

Title of Publication	Latest issue at 31 July 1973	Month of issue	Price	
			Excluding postage	Including postage (a)
WESTERN AUSTRALIAN YEAR BOOK	No. 11, 1972	Oct. 1972	\$ 2.00	\$ 2.45 (b)
WESTERN AUSTRALIAN POCKET YEAR BOOK (c)	No. 54, 1972	Sept. 1972	0.20	0.27
QUARTERLY STATISTICAL ABSTRACT	June 1973	July 1973	0.20	0.27
STATISTICS OF WESTERN AUSTRALIA (Annual):				
Building and Housing (c)	1970-71	Sept. 1972	0.30	0.37
Demography (c)	1970	Jan. 1973	0.40	0.52
Finance	1971-72	July 1973	0.40	0.47
Labour and Prices	1971	Sept. 1972	0.60	0.67
Local Government (c)	1970-71	Apr. 1973	0.50	0.57
Non-Rural Primary Industries	1970-71	Mar. 1973	0.20	0.27
Rural Industries (c)	1970-71	Mar. 1973	1.10	1.34
Social Statistics (c)	1971	Feb. 1973	0.30	0.42
Summary from 1829	1829-1971	Sept. 1972	0.20	0.27
Trade (overseas and interstate)	1971-72	Mar. 1973	1.40	1.75 (d)
Transport and Communication	1969-70 and 1970-71	Mar. 1973	0.30	0.37
ABSTRACT OF STATISTICS OF LOCAL GOVERNMENT AREAS (Annual) (c)	1973	Feb. 1973	0.50	0.68

(a) Within Australia and to Christmas Island, Cocos Island, Lord Howe Island, Norfolk Island, Nauru and Papua-New Guinea. (b) Within 30 miles of the General Post Office, Perth. Elsewhere in Western Australia, postage is 55 cents; to other States and Territories, 61 cents. (c) Includes statistics for individual local government areas. (d) Within 30 miles of the General Post Office, Perth. Elsewhere in Western Australia and to Cocos Island and Christmas Island, postage is 45 cents; to South Australia and Northern Territory, 65 cents; to Victoria, 75 cents; elsewhere in Australia, etc., 85 cents.

MIMEOGRAPHED PUBLICATIONS

(Available free of charge on application)

Subject	Frequency of issue	Latest issue at 31 July 1973	Month of issue
ACCIDENTS—			
Industrial Accidents	Annually	1971-72	Dec. 1972
Road Traffic Accidents involving Casualties	Quarterly	Mar. qr 1973	June 1973
Road Traffic Accidents involving Casualties (a)	Annually	1971	Aug. 1972
BUILDING—			
Building Operations (a)	Quarterly	Mar. qr 1973	June 1973
Building Permits and Approvals (a)	Monthly	June 1973	July 1973
Number of New Houses and Flats (preliminary estimates)	Quarterly	Mar. qr 1973	May 1973
EMPLOYMENT—			
Wage and Salary Earners in Civilian Employment	Annually	June 1966 to June 1972	Sept. 1972
FINANCE—			
Fire, Marine and General Insurance Statistics	Annually	1971-72	Jan. 1973
Local Government Finance Statistics	Annually	1970-71	Oct. 1972
Local Government Revenue and Expenditure: Budget Estimates (a)	Annually	1972-73	Nov. 1972
MOTOR VEHICLES—			
Motor Vehicle Registrations	Monthly	May 1973	June 1973
Motor Vehicle Registrations (a)	Annually	1969	Aug. 1970
POPULATION AND VITAL STATISTICS—			
Divorce	Annually	1972	June 1973
Hospital In-patient Statistics	Annually	1972	July 1973
Intercommunal Changes in Population (a)	Irregular	1961-1966	June 1968
Population and Occupied Dwellings: Censuses, 1911 to 1966 (a)	Irregular	1911 to 1966	Feb. 1968
Population, Dwellings and Vital Statistics (Local Government Areas and Statistical Divisions) (a)	Annually	1971 and 1972	Jan. 1973
Projections of the Population	Irregular	1967 to 1976	Feb. 1969

continued on next page

STATISTICAL PUBLICATIONS—continued

MIMEOGRAPHED PUBLICATIONS—continued

Subject	Frequency of issue	Latest issue at 31 July 1973	Month of issue
PRIMARY PRODUCTION—			
Agricultural and Pastoral Statistics (general summary)	Annually	1971-72	Nov. 1972
Agricultural Census: Principal Statistics (preliminary statement)	Annually	1972-73	July 1973
Apples and Pears in Cool Stores	Monthly	June 1973	July 1973
Artificial Fertiliser Used on Rural Holdings (a)	Annually	1971-72	Dec. 1972
Bee Keeping Statistics	Annually	1971-72	Nov. 1972
Catch of Fish and Crustaceans	Monthly	Nov. 1972	July 1973
Cattle and Pigs (a)	Annually	1972	Sept. 1972
Cereal Crop Forecast	Annually	1972-73	Oct. 1972
Chicks Hatched and Poultry Slaughtered	Monthly	May 1973	July 1973
Ewe Matings for Lambing	Triennially	1969 and 1970	Feb. 1971
Fisheries	Annually	1971-72	July 1973
Fruit (a)	Annually	1971-72	Jan. 1973
Grain and Other Crops and Cereal Varieties (a)	Annually	1971-72	Dec. 1972
Grain and Seed Harvesters on Rural Holdings (a)	Triennially	1970	Mar. 1971
Hay, Green Feed and Silage (a)	Annually	1971-72	Jan. 1973
Irrigation (a)	Annually	1971-72	Jan. 1973
Livestock Slaughtered and Meat Produced	Annually	1971-72	Dec. 1972
Machinery on Rural Holdings (a)	Annually	1972	Dec. 1972
Mineral Exploration	Annually	1971-72	Apr. 1973
Nursery and Flower Production Statistics	Annually	1971-72	Feb. 1973
Pasture Seed (a)	Annually	1971-72	Jan. 1973
Rock Lobsters Held in Cold Stores and Exported	Monthly	May 1973	June 1973
Rural Land Utilisation (a)	Annually	1971-72	Jan. 1973
Sheep, Lambing and Wool Clip (a)	Annually	1971-72	Sept. 1972
Tractors on Rural Holdings (a)	Triennially	1969	Mar. 1970
Value of Primary Production (excluding Mining and Quarrying) (preliminary statement)	Annually	1971-72	Dec. 1972
Vegetables (a)	Annually	1971-72	Jan. 1973
Wheat for Grain (a)	Annually	1971-72	Aug. 1972
SECONDARY PRODUCTION—			
Economic Censuses—Manufacturing Establishments and Electricity and Gas Establishments: Summary of Operations by Industry Class	Annually	1968-69 and 1969-70	Jan. 1973
Economic Censuses—Manufacturing Establishments: Industry, Area and Commodity Data (†)	Annually	1968-69	June 1973
Economic Censuses—Manufacturing Establishments: Selected Items of Data classified by Industry and Employment Size (†)	Annually	1968-69	June 1973
TRADE (EXTERNAL)—			
External Trade (Overseas and Interstate)	Annually	1970-71	Dec. 1971
Interstate Trade	Annually	1971-72	Oct. 1972
Quarterly Summary of Overseas Trade Statistics	Quarterly	To Mar. 1973	June 1973
TRADE (INTERNAL)—			
Wholesale Sales and Stocks of Wine and Brandy	Annually	1970-71 and 1971-72	Oct. 1972
GENERAL—			
Monthly Statistical Summary	Monthly	July 1973	July 1973

(a) Includes statistics for individual local government areas.

(†) New issue.

NOTE. In addition to the preceding publications, a number of bulletins which deal exclusively with this State are produced by the Commonwealth Statistician, Canberra who also issues many publications which contain particulars for Western Australia as a component of Australian totals. A complete list of all publications currently issued by the Central and the various State Offices of this Bureau appears in 'Publications of the Commonwealth Bureau of Census and Statistics' issued by the Commonwealth Statistician, copies of which are available free of charge from the Western Australian Office at the address shown on page 25.

